

Nakamura et al. – Serial No. 10/656,139

Attorney Docket No. 001701.00676

IN THE CLAIMS:

Please AMEND the claims as follows:

Claims 1-31. (Previously Canceled)

Claim 32. (Previously Amended) A non-volatile semiconductor memory device comprising:

a non-volatile memory cell; and

a write circuit, configured to write data in the memory cell, for supplying a write voltage and a write control voltage, thereby causing an alteration in a write state of the memory cell, for changing the supply of the write control voltage in order to slow down the alteration, and for terminating the alteration amid slowing down the alteration,

wherein the write control voltage is applied to a drain electrode of the memory cell.

Claim 33. (Previously Presented) The device according to claim 32, wherein the write voltage is stepwise increased.

Claim 34. (Previously Presented) The device according to claim 32, wherein the write circuit determines if the write state has reached a first level, and changes the supply of the write control voltage in response to an advent of the first level.

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Claim 35. (Previously Presented) The device according to claim 34, wherein the write circuit determines if the write state has reached a second level, and terminates the alteration in response to an advent of the second level.

Claim 36. (Currently Amended) The device according to claim 32, further comprising a word line connected to the memory cell at its gate electrode to which the write voltage is applied, and a bit line coupled to the memory cell at ~~is~~ its drain electrode to which the write control voltage is applied.

Claim 37. (Previously Presented) The device according to claim 32, wherein the write circuit is capable of writing data more than one bit in the memory cell.

Claim 38. (Currently Amended) A non-volatile semiconductor memory device comprising:

a non-volatile memory cell; and

a write circuit, configured to write data in the memory cell, for supplying a read voltage to the memory cell in order to read out data stored in the memory cell, for supplying a first verify voltage to the memory cell in order to determine if a write state of the memory cell has reached a first level, for supplying a write voltage and a write control voltage having a first effective voltage level to the memory cell, if the write state has not reached the first level, for applying supplying the write voltage and the write control voltage having a second effective voltage level to said memory cell, if the write state has reached the first level, for supplying a second verify

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voltage to the memory cell in order to determine if the write state of said memory cell has reached a second level, and for supplying the write voltage and the write control voltage having a third effective voltage level to the memory cell in order to terminate [a]writing data in the memory cell, if the write state has reached the second level,

wherein a difference between the read voltage and the second verify voltage is larger than a difference between the first verify voltage and the second verify voltage,
and the write control voltage is applied to a drain electrode of the memory cell.

Claim 39. (Previously Presented) The device according to claim 38, wherein the write voltage is stepwise increased.

Claim 40. (Previously Presented) The device according to claim 38, further comprising a word line connected to the memory cell at its gate electrode to which the write voltage is applied, and a bit line coupled to the memory cell at its drain electrode to which the write control voltage is applied.

Claim 41. (Previously Presented) The device according to claim 38, wherein the write circuit is capable of writing data more than one bit in the memory cell.